



PTO/SB/01 (03-01)  
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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☐ Declaration Submitted with Initial Filing  
OR  
☒ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	06419 USA
First Named Inventor	VanEric Edward Stein, et al.
<b>COMPLETE IF KNOWN</b>	
Application Number	/
Filing Date	
Group Art Unit	
Examiner Name	

**As a below named inventor, I hereby declare that:**

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ION TRANSPORT MEMBRANE MODULE AND VESSEL SYSTEM

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 08/06/2003 as United States Application Number or PCT International

Application Number 10/635,695 and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 21 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → +

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## DECLARATION — Utility or Design Patent Application

Direct all correspondence to: <input checked="" type="checkbox"/> Customer Number or Bar Code Label <span style="border: 1px solid black; padding: 2px 10px;">23543</span> OR <input type="checkbox"/> Correspondence address below			
Name			
Address			
Address			
City		State	ZIP
Country	Telephone		Fax
<small>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.</small>			
NAME OF SOLE OR FIRST INVENTOR :		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any)) VanEric Edward		Family Name or Surname Stein	
Inventor's Signature <i>VanEric Edward Stein</i>		Date 6 October 2003	
Residence: City Allentown	PA State	USA Country	USA Citizenship
Mailing Address 1090 Dylan Drive			
Mailing Address			
City Allentown	State PA	ZIP 18104	Country USA
NAME OF SECOND INVENTOR:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any)) Michael Francis		Family Name or Surname Carolan	
Inventor's Signature <i>Michael Francis Carolan</i>		Date 7 October 2003	
Residence: City Allentown	PA State	USA Country	USA Citizenship
Mailing Address 1091 Treeline Drive			
Mailing Address			
City Allentown	State PA	ZIP 18103	Country USA
<input checked="" type="checkbox"/> Additional inventors are being named on the <u>4</u> supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.			



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## DECLARATION

ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
Page 1 of 4

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Christopher M.		Chen	
Inventor's Signature <i>Christopher M Chen</i>		Date <i>7 October 2003</i>	
Residence: Allentown City	PA State	USA Country	USA Citizenship
Mailing Address 1602 Fieldstone Street			
Mailing Address			
City Allentown	PA State	ZIP 18106	USA Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Phillip Andrew		Armstrong	
Inventor's Signature <i>Phillip Andrew Armstrong</i>		Date <i>8 Oct 03</i>	
Residence: Orefield City	PA State	USA Country	USA Citizenship
Mailing Address 5071 Roth Road			
Mailing Address			
City Orefield	PA State	ZIP 18069	USA Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Harold W.		Wahle	
Inventor's Signature <i>Harold W. Wahle</i>		Date <i>9/19/03</i>	
Residence: North Canton City	OH State	USA Country	USA Citizenship
Mailing Address 2314 Beechmoor Drive			
Mailing Address			
City North Canton	OH State	ZIP 44720	USA Country

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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> <b>Supplemental Sheet</b> Page <u>2</u> of <u>4</u>
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<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Theodore R.		Ohrn	
Inventor's Signature <i>Theodore R. Ohrn</i>		Date <i>9/23/03</i>	
Residence: City Alliance	OH State	USA Country	USA Citizenship
Mailing Address 1390 Mishler Street			
Mailing Address			
City Alliance	OH State	ZIP 44601	USA Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Kurt E.		Kneidel	
Inventor's Signature <i>Kurt E. Kneidel</i>		Date <i>9/23/03</i>	
Residence: City Alliance	OH State	USA Country	USA Citizenship
Mailing Address 2041 Overcrest Street			
Mailing Address			
City Alliance	OH State	ZIP 44601	USA Country
<b>Name of Additional Joint Inventor, if any:</b>		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Keith Gerard		Rackers	
Inventor's Signature <i>Keith Gerard Rackers</i>		Date <i>9/23/03</i>	
Residence: City Louisville	OH State	USA Country	USA Citizenship
Mailing Address 612 East Main Street			
Mailing Address			
City Louisville	OH State	ZIP 44641	USA Country

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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> <b>Supplemental Sheet</b> Page <u>3</u> of <u>4</u>
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Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
James Erik		Blake	
Inventor's Signature		23-Sept-03 Date	
Residence: City Uniontown	OH State	USA Country	USA Citizenship
Mailing Address 1536 Gulf Street NW			
Mailing Address			
City Uniontown	OH State	ZIP 44685	USA Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Shankar		Nataraj	
Inventor's Signature		Oct 10, 03 Date	
Residence: City Allentown	PA State	USA Country	India Citizenship
Mailing Address 1012 South Hillview Drive			
Mailing Address			
City Allentown	PA State	ZIP 18103	USA Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Rege Hendrik Elias		van Doorn	
Inventor's Signature		27 August 2003 Date	
Residence: City D-74182 Obersulm-Willsbach	State	Germany Country	Netherlands Citizenship
Mailing Address Karoline Schnizlerweg 10			
Mailing Address			
City D-74182 Obersulm-Willsbach	State	ZIP	Germany Country

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<b>DECLARATION</b>	<b>ADDITIONAL INVENTOR(S)</b> <b>Supplemental Sheet</b> Page <u>4</u> of <u>4</u>
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Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Merrill Anderson		Wilson	
Inventor's Signature <i>Merrill A. Wilson</i>		Date <i>September 29, 2003</i>	
Residence: City West Jordan	UT State	USA Country	USA Citizenship
Mailing Address 3528 West Piera Circle			
Mailing Address			
City West Jordan	UT State	ZIP 84084	USA Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City	State	Country	Citizenship
Mailing Address			
Mailing Address			
City	State	ZIP	Country

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**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: VanEric Edward Stein et al.Application No./Patent No.: 10/635,695 Filed/Issue Date: 08/06/2003Entitled: Ion Transport Membrane Module and Vessel SystemAir Products and Chemicals, Inc., a corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

14 November 2003

Date

Mark L. Rodgers

Typed or printed name

Signature

Assistant General Counsel, Patents

Title

ASSIGNMENT

For value received, we, VanEric Edward Stein, Michael Francis Carolan, Christopher M. Chen, Phillip Andrew Armstrong, Harold W. Wahle, Theodore R. Ohrn, Kurt E. Kneidel, Keith Gerard Rackers, James Erik Blake, Nataraj Shankar, Rene Hendrik Elias van Doorn, Merrill Anderson Wilson, hereby sell, assign, and transfer to **AIR PRODUCTS AND CHEMICALS, INC.**, a corporation of the State of Delaware, having an office at 7201 Hamilton Boulevard, Allentown, PA 18195-1501, the entire right, title, and interest in and to the invention relating to

**ION TRANSPORT MEMBRANE MODULE AND VESSEL SYSTEM**

described in our application for Letters Patent of the United States (identified by Docket No. 06419 USA) executed of even date herewith, in and to all Letters Patent which may be issued upon said application, in and to any divisional or reissue applications based thereon, and in and to all Letters Patent upon said invention or improvements which may be granted in foreign countries. We hereby also assign and convey to said **AIR PRODUCTS AND CHEMICALS, INC.**, all the rights accruing to us by virtue of the International Convention for the Protection of Industrial Property (Art. 4), including the right to apply for and to have patents issued in its own name.

And we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and the Officials of the Patent Offices of all other countries to issue the Letters Patent of their respective countries to said **AIR PRODUCTS AND CHEMICALS, INC.**, as assignee of the entire right, title, and interest in and to the same.

And we hereby promise and agree to execute all papers and perform all acts necessary to secure to and vest in said **AIR PRODUCTS AND CHEMICALS, INC.**, its successors and assigns, the rights conveyed as herein set forth.

VanEric Edward Stein (L.S.)  
VanEric Edward Stein

6 October 2003  
Date

Michael Francis Carolan (L.S.)  
Michael Francis Carolan

7 October 2003  
Date

Christopher M. Chen (L.S.)  
Christopher M. Chen

7 October 2003  
Date

Phillip Andrew Armstrong (L.S.)  
Phillip Andrew Armstrong

8 Oct 03  
Date

Harold W. Wahle (L.S.)  
Harold W. Wahle

9/19/03  
Date

Theodore R. Ohrn (L.S.)  
Theodore R. Ohrn

9/27/03  
Date



Kurt E. Kneidel (L.S.)  
Kurt E. Kneidel

23 - Sept - 03  
Date

James E. Blake (L.S.)  
James Erik Blake

23 - Sept - 03  
Date

Rene Hendrik Elias van Doorn (L.S.)  
Rene Hendrik Elias van Doorn

27 August 2003  
Date

Keith Gerard Rackers (L.S.)  
Keith Gerard Rackers

23 - Sept - 03  
Date

Nataraj Shankar (L.S.)  
Nataraj Shankar

10 - Oct - 03  
Date

Merrill Anderson Wilson (L.S.)  
Merrill Anderson Wilson

September 29, 2003  
Date